

T. A. EDISON.

Improvement in Unison-Stops for Printing-Telegraphs.

No. 131,344.

Patented Sep. 17, 1872.

Fig. 1.

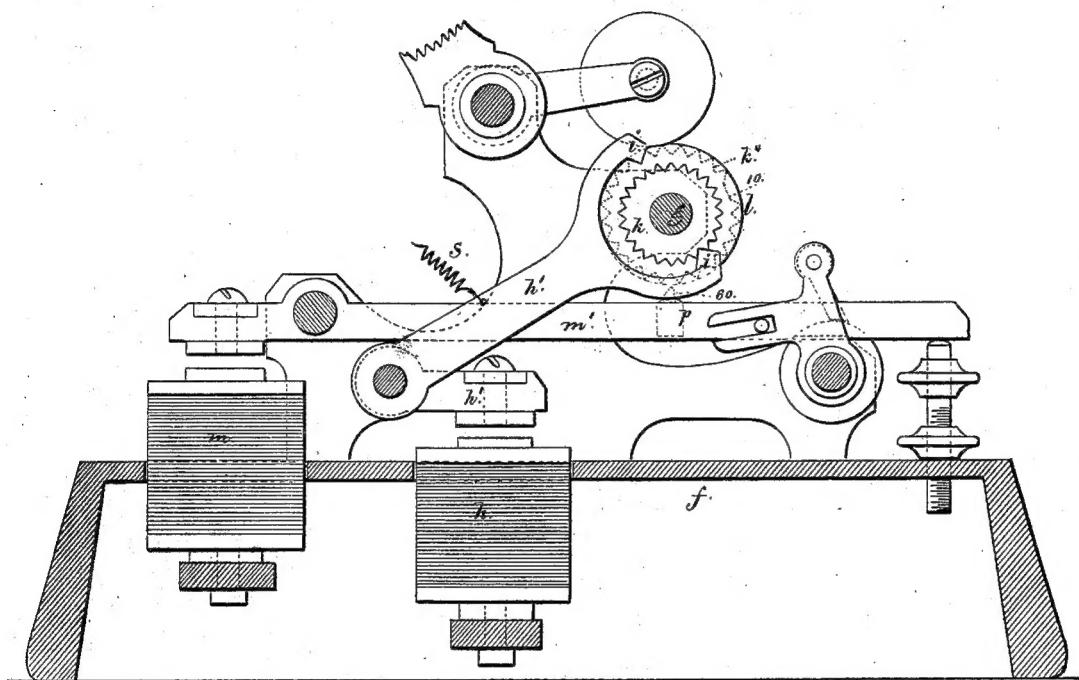
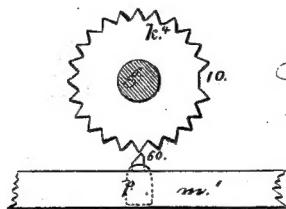


Fig. 2.



INVENTOR

Thomas A. Edison,

Charles N. Smith  
Witnesses.  
Harold L. Smith

Dr. Lemuel W. Perrell  
ATTY.

# UNITED STATES PATENT OFFICE.

THOMAS A. EDISON, OF NEWARK, NEW JERSEY.

## IMPROVEMENT IN UNISON-STOPS FOR PRINTING-TELEGRAPHS.

Specification forming part of Letters Patent No. 131,344, dated September 17, 1872.

*To all whom it may concern:*

Be it known that I, THOMAS A. EDISON, of Newark, in the county of Essex and State of New Jersey, have invented an Improvement in Printing-Telegraphs; and the following is declared to be a correct description of the same.

This invention is devised for rotating the type-wheel around to a unison-point by the action of a wedge-shaped tooth on the printing-lever operating upon a toothed wheel on the type-wheel shaft; thereby a number of machines in an electric-circuit are brought to a unison-point by pulsations through the printing-lever.

In the drawing, Figure 1 is a section showing the type-wheel and wedge-acting escapement, and Fig. 2 is a detached view of the unison-wheel and tooth.

The bed *f*, type-wheel *l*, shaft *g*, printing-magnet *m*, type-wheel magnet *h*, and printing-lever *m'*, are of the usual character. The wedge-acting pallets *i* of the type-wheel lever *h'* act upon the ratchet-wheel *k*, and give the type-wheel *l* a progressive movement, step by step, the pallets *i* being placed so that the type-wheel is moved half a space as the magnet *h* is energized, and the other half space is moved by the spring *s* acting upon the lever *h'*, when the pulsation in *h* is arrested. Upon the printing-lever *m'* is a pallet or tooth, 60, and upon the type-wheel shaft *g* is a toothed wheel, *k'*, with one tooth removed at the point where the type-wheels will be brought into unison.

The operation is as follows: Ordinarily the impression from the type-wheel by the printing-pad *p* will be made when the circuit through *h* is broken, and the parts in the position shown in Fig. 1, in which case the tooth 60 moves in between the teeth of *k'* without acting to turn the same; but when the machines are to be brought to unison, the circuit through *h* is kept

closed, and the pallet *i* moves the type-wheel *l* and wheel *k'* half a space, so that the latter is in the position to the tooth 60, shown in Fig. 2; the printing-magnet *m* is then energized by a series of pulsations, and as the printing-lever *m'* moves, the tooth 60 rotates the wheel *k'* and type-wheel *l* around until the space 10, formed by the removal of one of the teeth of *k'*, reaches the tooth 60, and hence there can be no further motion of the type-wheel, because the tooth 60 has nothing to act against, and thereby the type-wheels of the various printing-telegraph machines in the line will all stop when they arrive at the unison-point, even though the levers *m'* are still operated to bring into unison any type-wheels that may not have arrived at that point. During these motions, the upper pallet *i* yields as the shaft *g* and wheel *k* are turned, and this pallet *i* acts as a pawl to prevent a reverse movement. The type-wheel will not be printed from in these movements, because the pad *p* is brought up at the space between one type and the next, the pallets *i* being in the reverse position to that occupied by them when the printing is effected.

I claim as my invention—

1. The wheel *k'* and tooth 60, actuated by the printing-lever *m'*, in combination with the type-wheel *l*, wheel *k*, and pallets *i*, substantially as and for the purposes set forth.

2. Adjusting the type-wheel to the unison-point by the movement of the printing-lever while the type-wheel pallets are in the opposite position to that which they occupy when the type-wheel is being printed from, substantially as set forth.

Signed by me this 29th day of June, A. D. 1872.

T. A. EDISON.

Witnesses:

GEO. D. WALKER,  
GEO. T. PINCKNEY.